

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Veijo T. Suorsa et al.  
 Serial No: 09/938,307  
 Filed: 23 August 2001  
 For: Systems and Methods for Applying Pulsed Ultrasonic Energy

Group Art Unit: 3737  
 Examiner: Ruth S. Smith

Mail Stop Amendment  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT BEFORE MAILING DATE  
 OF EITHER A FINAL ACTION OR NOTICE OF ALLOWANCE (37 CFR 1.97(c))**

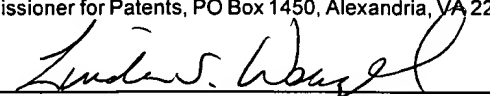
- NOTE: "An information disclosure statement shall be considered by the Office if filed ... before the mailing date of either (1) a final action under S 1.113 or (2) a notice of allowance under S 1.311, whichever occurs first, provided the statement is accompanied by either a certification as specified in paragraph (e) of this section or the fee set forth in S 1.17(p)." 37 CFR 1.97(c).
- NOTE: "If a final action or notice of allowance is mailed in an application and later withdrawn, the application will be considered as not having had a final action or notice of allowance mailed for purposes of considering an information disclosure statement." Notice of April 20, 1992 (1138 O.G. 37-41, 39).
- NOTE: "If information submitted during the period set forth in 37 CFR 1.97(c) with a certification is used in a new ground of rejection on unamended claims, the next Office action will not be made final since in this situation it is clear that applicant has submitted the information to the office promptly after it has become known and the information is being submitted prior to a final determination on patentability by the Office. However, the information submitted with a certification can be used in a new ground of rejection and the next Office action made final, [i]f the new ground of rejection was necessitated by amendment of the application by applicant. Where the information is submitted during this period with a fee, the examiner may use the information submitted, e.g., printed publication or evidence of public use, and make the next Office action final whether or not the claims have been amended, provided that no other new ground of rejection which was not necessitated by amendment to the claims is introduced by the examiner. See MPEP 706.07(a). If a new ground of rejection is introduced that is neither necessitated by an amendment to the claims nor based on the information submitted with the fee set forth in 37 CFR 1.17(p), the Office action shall not be made final." Notice of April 20, 1992 (1138 O.G. 37-41, 39).
- WARNING: "A PETITION FOR SUSPENSION OF ACTION TO ALLOW APPLICANT TIME TO SUBMIT AN INFORMATION DISCLOSURE STATEMENT WILL BE DENIED AS FAILING TO PRESENT GOOD AND SUFFICIENT REASONS, SINCE 37 CFR 1.97 PROVIDES ADEQUATE RECOURSE FOR THE TIMELY SUBMISSION OF PRIOR ART FOR CONSIDERATION BY THE EXAMINER." NOTICE OF JULY 6, 1992 (1141 O.G. 63).

**TIME OF TRANSMITTAL OF ACCOMPANYING INFORMATION  
 DISCLOSURE STATEMENT**

1. The information disclosure statement transmitted herewith is being filed AFTER THREE MONTHS OF THE FILING DATE OF THIS NATIONAL APPLICATION OR THE DATE OF ENTRY OF THE NATIONAL STAGE AS SET FORTH IN S 1.491 IN AN INTERNATIONAL APPLICATION OR AFTER THE MAILING DATE OF THE FIRST OFFICE ACTION ON THE MERITS, WHICHEVER EVENT OCCURRED LAST BUT BEFORE THE MAILING DATE OF EITHER:
  - (1) a final action under § 1.113 or
  - (2) a notice of allowance under § 1.311,
 whichever occurs first.

**CERTIFICATE OF MAILING (37 CFR 1.8a)**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail, with sufficient postage, in an envelope addressed as follows: Mail Stop Amendment, Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, on 6 November 2006

  
 Signature of Person Signing

Linda S. Wenzel  
 Type or Print Name of Person Signing

11/09/2006 RFEKADU1 00000066 09938307

02 FC:1806

180.00 OP

## CERTIFICATION OR FEE

2. Accompanying this transmittal is  
(check either A or B below)
- A. ☐ a certification as specified in 37 CFR 1.97(e)  
OR
- B. ☒ the fee set forth in 37 CFR 1.17(p) for submission of an information disclosure statement under S 1.97(c). (\$180.00).

## FEE PAYMENT

(complete this item, if applicable)

3. Applicant elects the option to pay the fee set forth in 37 CFR 1.17(p) for submission of an information disclosure statement under S 1.97(c) (\$180.00).

Fee due \$ 180.00

## METHOD OF PAYMENT OF FEE

4. ☒ Attached is check in the amount of \$ 180.00
- ☐ Charge Account No.      in the amount of \$                       
A duplicate of this request is attached.

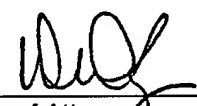
The submission of any document herewith is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicant does not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* prior art reference against the claims of the present application.

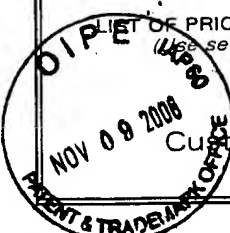
If any additional fees are due, please charge Account No. 06-2360.

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Customer No. 26308

  
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Signature of Attorney  
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Type or Print Name of Attorney of Record  
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**Milwaukee, Wisconsin 53226-0618**  
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Mailing Address of Sender

 <p>LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary)</p> <p>Customer No. 26308</p>	ATTY DOCKET NO. 9345.17121-CIP B	SERIAL NO. 09/938,307
	APPLICANT Suorsa et al.	
	FILING DATE 23 August 2001	GROUP 3737

### U.S. PATENT DOCUMENTS

Examiner Initial	DOCUMENT NUMBER	Date	Name	Class	Subclass	Filing Date (if Appropriate)
	5,720,304	02/1998	Omura			
	5,190,766	03/1993	Ishihara			
	2003/0204141	04/2002	Nock et al.			

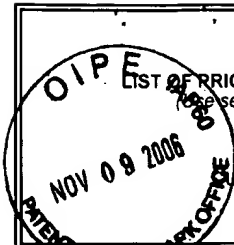
### FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	Class	Sub-class	Translation Yes No

### OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

			Ng, K. et al., "Therapeutic Ultrasound: Its Application in Drug Delivery"; Medicinal Research Reviews, Vol. 22, No. 2, 204-223, 2002
			Tachibana, K. et al., "The Use of Ultrasound for Drug Delivery"; Echocardiography, Vol. 18, May 2001.
			Hull, W. et al., "Heat-Enhanced Transdermal Drug Delivery: A Survey Paper"; The Journal of Applied Research, Vol. 2, No. 1, Winter 2002.
			International Cancer Research Portfolio ABSTRACT - award funding period 01-15-99 to 12-31-02, award code CA076562.
			Cho, C.W., et al, "Ultrasound induced mild hyperthermia as a novel approach to increase drug intake in brain microvessel endothelial cells", Pharm Res. 2002 Aug;19(8);1123-9
			Internet article: "Good Vibrations Personal Energiser Pty Ltd. - Vita fon-IR" (Google Web address)
EXAMINER			DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this of with next communication to applicant

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### U.S. PATENT DOCUMENTS

Examiner Initial	DOCUMENT NUMBER	Date	Name	Class	Subclass	Filing Date (If Appropriate)
	3,985,337	10/1976	Gripe et al.			
	4,563,261	01/1986	Staab et al.			
	4,651,716	03/1987	Forester et al.			
	4,740,287	04/1988	Cawfield			
	4,955,365	09/1990	Fry et al.			
	5,024,829	06/1991	Berger et al.			
	5,230,334	07/1993	Klopotek et al.			
	5,313,935	05/1994	Kortenbach et al.			
	5,359,993	11/1994	Slater et al.			
	5,394,047	02/1995	Scharlack et al.			
	5,400,267	03/1995	Denen et al.			
	5,626,554	05/1997	Ryaby et al.			
	5,991,355	11/1999	Dahlke			

### FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	Class	Subclass	Translation Yes No

### OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

			Koiwa et al., "The effect of diastolic vibration on the coronary flow rate in the canine heart with ischemia" Journal Cardiovasc Diagn Procedures, 12; p. 110 (1994)
			Internet article: "Good Vibrations Personal Energiser - Vitafo - IR" (Google Web address), discloses information about the Vitafo-IR device (a well known device operable to deliver microvibrations in the audible frequency range which has been on sale well before 2003) and its use in improving blood flow and selectively improving drug concentration and thereby improved drug efficacy localized to the action of devices's transformers.

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SERIAL NO.  
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APPLICANT  
Suorsa et al.

CUSTOMER NO. 26308

FILING DATE  
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GROUP  
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Examiner Initial	DOCUMENT NUMBER	Date	Name	Class	Subclass	Filing Date (If Appropriate)
	6,080,187	06/2000	Alt et al.			
	6,237,604	05/2001	Burnside et al.			
	6,295,330	09/2001	Skog et al.			
	6,477,426	11/2002	Fenn et al.			
	6,577,042	06/2003	Lee et al.			
	6,635,017	10/2003	Moehring et al.			
	6,682,502	01/2004	Bond et al.			
	6,979,812	12/2005	Al-Ali			
	7,048,687	05/2006	Reuss et al.			
	2004/0230252	11/2004	Kullok et al.			

		DOCUMENT NUMBER	DATE	COUNTRY	Class	Subclass	Translation Yes No

			Zagzebski, "Essentials of Ultrasound Physics," Physics of Diagnostic Ultrasound, p. 5 (1996)
			Google Website: "Hearing Pitch or Sound Frequencies - Succeed Through Using your Senses" - "Hearing Pitch or Sound Frequencies" by Ron Kurtus (7 March 2001)
			Google Website: "Frequency Hearing Ranges in Dogs and Other Species" - "How Well Do Dogs and Other Animals Hear" references data from Fay (1988) and Warfield (1973) in a table which lists the human audible frequency range between 64 - 23 000 Hz, and some animals as high as 150 kHz.
			The "VitaFon Device," VitaFon Company, <a href="http://www.vitaFon.net">www.vitaFon.net</a> 2002

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